

Library

Space Planning Guide

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Introduction

This outline is intended to initiate a larger facilities planning process. By completing this outline, librarians and trustees can quickly obtain a general estimate of their library's space needs. With that estimate, planners can assess the adequacy of the existing overall square footage and they can determine if a more detailed study would be appropriate.

This outline does not presume to offer a precise estimate of space needs. There are many detailed factors affecting space needs and service projections that are not addressed in this booklet. Only seven broad types of library space are defined here:

- collection space
- public electronic workstation space
- user seating space
- staff work area space
- meeting room space
- special-use space
- non-assignable/mechanical space

Calculation of the needs in these broad types of space, however, quantifies the largest share by far of the overall projected space needs. A more detailed study would serve to refine the overall space needs assessment. (See Appendix 1).

Library planners must also acknowledge that availability of space (or lack of it) is not the sole reason for examining physical facilities. Energy efficiency and condition of the heating, ventilating and air conditioning systems (ideal temperature and humidity for preserving materials are 65 to 70° with 35 to 50% humidity), adaptability to meet the electrical and telecommunications requirements of tomorrow's library technologies, assessment of the general effectiveness of work flow, accessibility to people with disabilities, and compliance with federal, state and local fire, safety, and building

codes are all suitable reasons to examine the structure that houses your local library.

The Connecticut State Building Code applies to all new buildings and alterations and additions to existing buildings. All new construction areas must comply, but existing non-altered areas may remain non-conforming as long as total height and area requirements are not exceeded, safety is not reduced, and handicapped accessibility is provided. The Fire Safety Code applies to all areas of existing and new buildings.

Examples of regulations that might apply are:

- Any room or floor area which is occupied by 50 or more persons must have two means of egress to a fire exit. The two exits must be remote from one another.
- Occupancy loads are calculated at one person per 50 square feet of floor area in reading rooms, one per 100 square feet in stack areas, and one per 7 square feet in assembly rooms without fixed seats.
- Stairways and vertical shaft ways must be enclosed by two hour rated construction, or one hour if the building is totally sprinkled where adequate water is available.
- Buildings with elevators must have areas of refuge for person with a physical disability, unless the building is totally sprinkled.
- Live-load capacity required for structural design is 100 pounds per square foot (PSF) for public and assembly uses, 60 PSF for reading areas, and 150 PSF for stack areas. Total flexibility requires a consistent 150 PSF throughout the library.
- The size of the building, its proximity to other buildings and uses, and the type of construction will determine other requirements.

This planning guide is intended to explain the special building requirements for public libraries thus includes additional space requirements.

A major federal law that may also affect space is the Americans with Disabilities Act of 1990 (ADA). This law gives citizens with disabilities the right to participate fully in public library services, and may require alterations to ensure accessible services. The emphasis under the ADA is on accessible services rather than fully accessible buildings. Please keep in mind that you will need an accessible route, a continuous unobstructed path connecting all accessible elements and spaces of a building. Interior accessible routes may include corridors, floors, ramps, elevators, lifts, and clear floor space next to furniture.

Buildings officially designated as historically significant are not exempt form the ADA, but libraries do not have to damage the historic integrity of the structure to make them accessible; every effort should be made to provide at least a minimal degree of access in a historic structure.

Basically, the planning outline adheres to the traditional library planning methodology in which past library experience relating population to library building size determines the facilities that are needed. However, **a planning process** based on library service output measures by the American Library Association should also be used in this process.

The recommendations in some of the steps are minimums, and public libraries are encouraged to go beyond these recommendations. Library planners should also remember that their plans ought to reflect the community's information needs for at least the next 20 years. While the actual long-term impact of evolving technology cannot be predicted, its importance in the library will continue to grow, and plans should provide for that growth.

LIBRARY OUTPUT MEASURES are found in the paperback entitled *Output Measures for Public Libraries; A Manual for Standardized Procedures, 2nd ed.* (Chicago, American Library Association, 1987). *Planning for Excellence: A Checklist for Connecticut Public Libraries* (Hartford, Connecticut State Library, 1986), *Planning and Role Setting for Public Libraries* (Chicago: American Library Association, 1987), and *Minimum Standards for Connecticut Principal Public Libraries* (Hartford, Connecticut State Library, 1994) are also helpful planning tools.

A **worksheet** is included in the *Application for State Public Library Construction Grant* to help with the calculation of a library's projected overall space need.

Step-by-Step Planning

Step 1: Service Population

Effective library facilities planning begins with a projection of the service population 20 years hence. Since library buildings are an important capital investment for most communities, it is crucial that they be planned to respond to current *and future* needs. Projected service population is used to calculate several of the categories of library space that follow.

Estimates of the projected population can typically be obtained from your municipality, county, the regional planning commission, or from the State Office of Policy and Management. Local school districts may also be a valuable source for these projections; be aware, however, that school district service areas may not coincide with public library service areas.

Most public libraries also serve residents from beyond the boundaries of the municipality in which they are located (Connecticard). To ignore the service implications or traffic generated by these individuals would result in a facility that would be outgrown to quickly.

One method of determining the nonresident service population is to calculate the ratio of nonresident transactions by a sample count and apply that ratio to the base population.

- ⇒ Formula for projecting nonresident population to be served
 - Divide nonresident circulation transactions by the total circulation transactions (this percentage equals the ratio of nonresident population to local population)
 - 2. Multiply that percentage by the projected local population figure.
- ⇒ Formula for projecting entire service population:

Add projected nonresident population figure to the projected local population figure.

Example

The town has a projected population of 8,500. The total circulation transactions were 75,000 (7,500 were nonresident transactions and 67,500 were resident transactions.)

TOTAL SERVICE POPULATION 9.350



Cultural Awareness

"Multilingual signage is an important consideration if the library serves a significant non-English-speaking population or users for whom English is a second language."
(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)

Step 2: Collection Space

Projecting Collection Space

By projecting the library's collection size, the space needed to house the collection can be quantified. It is most effective to make these projections over a 20-year period.

Materials that have not been checked out during the last 5 years should be evaluated for withdrawal prior to determining the collection size. In addition, books that are in poor condition and outdated materials that have been superseded by better materials on the same subject should be withdrawn. Reference materials that do not circulate should be evaluated more frequently. A library should withdraw 5-10% a year. In creating a weeding policy Boon's *The Crew Method* is helpful.

• Book collection

There are two methods for calculating book collection size:

- 1. For libraries that have undersized collections because of the lack of space, a minimum collection size can be projected on a per capita measurement. The chart in Appendix 2, p. 41, can be a guide in determining minimum book collection size.
- 2. An alternate means of projecting collection size is to calculate the **average net additions** to the collection (volumes added minus volumes withdrawn equals net additions) and extend that rate of addition **over 20 years.** If the library is not planning to grow at its present rate and this is supported in its long range plan, the library can use a smaller collection figure as long as the library can house its existing collection with some expansion.
- Nonprint materials (music and book audiocassettes, compact discs, or other formats)

Likewise, project the size of this collection 20 years hence. The chart in Appendix 2, p. 41, can be a guide in determining minimum needs.

Periodicals

Again, project the size of this collection 20 years hence. The chart in Appendix 2, p. 41, can be a guide in determining a minimum periodical collection.

Calculating Collection Space

The number of volumes that can be stored in a given space can vary from 5 to 25 volumes per square foot, depending on several factors: the height of the shelving, width of the aisles, and the type of material (reference vs. children's books). For compact book storage, use 25 volumes per square foot. For stack arrangements with aisles, a general average of 10 volumes per square foot permits maximum flexibility and minimizes the number of books placed on difficult-to-reach top and bottom shelves, while leaving adequate space on each shelf for years.

A children's library area may vary from 20 to 40% of a library's total assignable area. This percentage will be affected by the library's defined roles in the long-range plan. This area should be flexible to allow for expansion or reduction. Storage should also be planned in the children's area for seasonal storage for materials most in demand at particular times of the year.

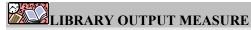
- ⇒ Formula for Books To estimate the square feet of space needed to house the library book collections with aisles, divide the total projected collection by 10. For compact book storage dived by 25.
- ⇒ Formula for Nonprint Materials (Videos, Books on Tape, CD-ROM's, Music CDs, Audiocassettes, etc.) To estimate the square feet of space needed to house these library collections, divide the total projected collection by 10.

⇒ Formula for Periodicals - To determine the square feet of space needed to house periodicals, use the following formulas:

Current issues of periodicals housed on display-type shelving divide by the number of titles displayed by 1.5. (To save space, full-text articles could be acquired electronically.)

Back issues of hard copy periodicals, multiply by the number of titles of back periodicals by 0.5, and then multiply that product by the average number of years to be retained. (To save space, back periodicals could be stored on microfiche, microfilm, or accessed electronically.)

Example	(service population-9,	350)
		square feet
30,000 vo	lumes ÷ 10	3,000
3,000 non	print items ÷ 10	300
135 curren	nt periodicals ÷ 1.5	90
40 hard co	ppy back periodicals x	
0.	5 x 5 years	100
TOTAL CO	DLLECTION SPACE	3,490



As use intensifies, a larger collection will be needed. See Appendix 2, for additional books per capita.

THE NEW PLANNING FOR RESULTS

Business and Career Information

"While some libraries provide a separate business and career information desk, this service is often provided from the same physical space as other reference and information services. Typically, a great deal of space and furnishings is shared.

Consumer Information

"Consumer Information service is often provided from the same physical space as ther reference and information services. Typically, a great deal of space and furnishings is shared."

THE NEW PLANNING FOR RESULTS cont'd

Current Topics and Titles

"Display shelving, display end panels, and other furnishings that allow for the effective merchandising of materials should be provided. Broad aisles that encourage browsing should be standard design feature."

Government Information

"Libraries providing Government Information service may vary from minimal to extensive, depending on whether the library acts a full or partial depository of documents and the storage and retention requirements that accompany the designation. Libraries providing Government Information service should provide quiet study spaces."

Local History and Genealogy

"Libraries providing a high level of Local History and Genealogy service face a number of specialized facilities considerations. Rare, fragile, and archival materials should be housed in a secure and temperature-and humidity-controlled environment. High-density storage units are often used." (*The New Planning for Results: a Streamlined Approach* by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

- Libraries should acquire materials in a variety of formats such as large-print books, books on tape, closed-caption videos, descriptive videos, music audiocassettes and/or compact discs
- Aisle widths between bookstacks must be at least 36 inches (42 inches preferred)
- Clear space of at least 36 inches at the ends of the bookstacks when more than two stack aisles are served by the end aisle. If two or less stack aisles are served by the end aisle use 48 inches at the ends of the bookstacks
- Head room of at least 80 inches
- No protruding objects into the path of travel
- Reach height of card catalogs and magazine displays of 48 inches maximum for front approach and 54" maximum for side approach (lower heights are preferred).

Step 3: Public Electronic Workstation Space and Information on Automation Needs

Changing technology makes it difficult to plan this space; however, there will be a demand that all public and staff areas of the library provide for the connection of computers and information appliances, both mobile and fixed, that use twoway voice, data and/or video communications services.

All desks, work/study carrels, and conference/meeting rooms should be able to be connected to the in-building network.

Technology affects the library's electrical and wiring needs Buildings should be capable of supporting wired (up to 1 GBPS) and/or wireless (up to 2 MBPS - primarily for mobile devices) access to digital communications services that may originate from within the building or from external networks. External networks include the Internet, private and public wide area networks, the public telephone network and the cable network accessed through a variety of commercial service providers, including local exchange carriers and cable companies, that may connect the library using copper wire, cable, wireless or fiber optics transmission media.

Currently, the optimum choice for a common inbuilding wiring scheme is Category **5e** UTP (unshielded twisted pair) optimized for 1000BASE-T applications and conforming to the ANSI/TIA/EIA-568-B Commercial Building Telecommunications Cabling Standard (2001), in particular, 568-B.2: Balanced Twisted Pair Components. To ensure that the cabling system you install today does not become obsolete prematurely, it is further recommended that Category 5e be considered a *minimum* standard and that preference be given to cabling systems

¹ This standard is available from http://global.ihs.com/. The technical group responsible for this standard is known as TR-42.7 (www.tiaonline.org/standards/star/tr42.cfm), which is part of the Telecommunications Industry Association.

that meet or exceed the latest available draft of TIA/EIA's Category 6 Standard (now at Draft #10), which, if approved, will be published as an addendum to 568-B.2 in early 2002. It is important that Category 5e wiring be installed by installers who are certified for Category 5e wiring installations, since improper installations may prevent the wiring system from being able to support the maximum data rates which the physical medium itself can support.

In addition, libraries may want to consider exterior (wall or roof) mounting of a satellite antenna (e.g., DBS) for satellite reception, if the same signals are not available through the communications facilities described above.

For documentation related to in-building wiring, see:

• Category 6 Draft Proposals (November 2001):

www.tiaonline.org/standards/sfg/ball ots/sp/files/SP3727AD1B.PDF

www.tiaonline.org/standards/sfg/ball ots/sp/files/CTRB636568B2Add3.P DF

- Running 1000BASE-T: Gigabit Ethernet over Copper www.10gea.org/GEA_copper_0999 rev-wp.pdf
- The Limitations of Cat 5e www.anixter.com/techlib/pdf/9W005 8X0.pdf
- Category 5: How Did We Get Here and Where Do We Go Next? www.anixter.com/techlib/whiteppr/c abling/d0504p05.htm
- Gigabit Ethernet Alliance: www.10gea.org/index.htm
- Cabling System Selection: A product and system approach www.anixter.com/techlib/pdf/ortroni cs_whitePaper.pdf
- Current U.S. Telecommunication
 Design Standards
 <u>www.abrconsulting.com/Standards/m</u>
 ainstan.htm

- Future Direction of Network Cabling Standards
 www.bicsi.org/PKishstd.pdf
- Guidelines for Technology
 Infrastructure in Connecticut Schools
 (1995)
 www.state.ct.us/sde/tech/gtics.pdf

The building should have enough circuits and electrical outlets for present and future needs. Computers should have dedicated circuits. Electronic workstations should have surge protection. Wiring to workstations can be through the wall, down a column or pole or from the floor. Computer furniture should have cable management for electrical cords and computer, printer, and telephone cables with 8 electrical receptacles per workstation.

• Public Access Computer (PAC) workstations can be physically placed throughout the library. PACs usually consist of a terminal, keyboard and printer access. For a stand-up workstation allow for 20 square feet and for a sit-down workstation allow for 40 square feet. An average space allocation is 30 square feet excluding a printer. (Instead of PACs, libraries could use electronic workstations as

described below.)

- Electronic workstations must provide for computer equipment, user space for a book or writing, and peripherals. Workstations must have two-way access to outside resources, such as the Internet, ReQuest, Connecticut Digital Library (http://www.iconn.org/), local and widearea networks, automated network circulation, and other online resources. A space of 48 inches wide for individual user and 60 inches wide is needed to allow for multiple computer users. An average space allocation is 45 square feet.
- Microfilm or Microfiche Reader/Printer Workstation

The space allocation is 35 square feet.

- ⇒Formula for PACs-To estimate the square feet of space needed for PAC workstations, multiply the number of PAC workstations by 30.
- ⇒Formula for electronic workstations- To estimate the square feet of space needed, multiply the number of electronic workstations by 45.
- ⇒Formula for microfiche or microfilm reader/printer-To estimate the square feet of space needed, multiply the number of microfiche and microfilm reader/printer workstations by 35.

Example	(service population	on: 9,350)
	S	square feet
4 PACs (2 s	it down and 2 stand ı	up)
x 30		120
10 electronic	e workstations	
(also PAC	Cs) x 45	450
1 microfilm	reader/printer x 35	35
TOTAL PU	BLIC	
WORKS	TATIONS	605

LIBRARY OUTPUT MEASURE

Greater intensity of use as measured by Reference Transactions per Capita of .6 or higher will require more electronic workstations in the reference area.

THE NEW PLANNING FOR RESULTS.

Business and Career Information

"Communications technologies are particularly important for the business aspect of this service response. The library needs a high-quality telephone system and the capability of sending and receiving faxes at the business information service desk. Copying facilities should be adequate to meet heavy demand. Libraries may want to consider a business service center including color copying equipment, copiers that collate, binding machines, etc. Libraries should consider offering videoconferencing facilities."

THE NEW PLANNING FOR RESULTS cont'd

Community Referral

"The facilities requirements for this service response are minimal, with the exception of adequate electrical and network wiring to support the computers needed to host the community resources database if the library is providing access by telephone or through a dialin service."

Consumer Information

"A great deal of consumer information is available from online sources. Libraries offering this service need to provide physical space that can accommodate computers and printers."

Cultural Awareness

"Since many cultural resources are available on CD-ROM and from the Internet, the library should supply multimedia computers capable of sound and of displaying high-resolution graphics."

Current Topics and Titles

"Libraries may offer listening and viewing facilities for browsing and previewing purposes."

General Information

"Workstations for both standing and seated computer use (short and extended use) should be provided."

Information Literacy

"While Information Literacy service involves more than just computer literacy, training in locating and evaluating online resources is often a major component. Specialized equipment such as a video equipment capable of frame-by-frame display and computer input video projection units are highly desirable, in addition to more traditional teaching technologies."

Lifelong Learning

Online public access computers should be located in and near the collections...Multimedia computers and other individual educational tools should be provided that can be used for self-paced individualized instruction."

Local History and Genealogy

"Public Internet access should be provided. Necessary equipment includes computers, printers, and monitors capable of displaying and printing high-resolution graphic images; microform readers and reader/printers and copying machines."

(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

WORK SPACE

If a library has public workstations, at least 5% or one of each type must be wheelchair accessible. Consider having a large-print display or voice output on the computer for a person with a visual impairment.

Step 4: User Seating Space

It is recommended that libraries provide 5 user seats for every 1,000 people in their projected service area. Libraries serving less than 10,000 residents should provide 7 to 10 seats for every 1,000 **residents.** This recommendation only establishes a base or starting point for further consideration. User seating does not include the seats, conference rooms, meeting rooms, and staff work areas, unless the meeting rooms will be used for everyday library activities, such as quiet study or homework center. If a meeting room is available for everyday library activities. excluding meetings, a minimum of fifty percent of the hours that the library is open, ten percent of the meeting room seats could be used to meet the total seating requirement. Document on the worksheet how the room will be used and staffed.

In planning for future flexibility it may be useful to provide wiring that would permit converting all seating to electronic workstations.

If your library emphasizes current material and best sellers and encourages browsing use of the collection, fewer seats are needed and the projection should be adjusted downward. If your library emphasizes research material and encourages long-term use by students and scholars, additional seats may be needed and the projection should be adjusted upward.

Just as the specific space required to house the collection depends on the type of shelving used and the type of material stored there, so the exact amount of space needed for user seating will vary depending on the type of seating: for seating at tables, allow 25 square feet per seat; for seating at study carrels, allow 30 square feet; for seating in lounge chairs, allow 35 square feet, etc.

- ⇒ Formula for Seating To estimate the square feet of space needed to provide adequate user seating, do the following:
- 1. subtract the number of public electronic workstation seats from the projected number of seats (Public electronic workstation seats square feet included in Step 3.)
- 2. subtract the number of meeting room seats, if applicable
- 3. multiply the remaining number of seats by

Example (service population-9,350)

- 75 projected seats 9 public electronic workstation seats = 66 projected seats
- 66 user seats x 30 = 1.980 sq. ft.



LIBRARY OUTPUT MEASURE

Library visits per capita -- 6.0 In-library use per capita --- 2.5 Reference Transactions per capita -- .6

These are useful guides to intensity of activity. Libraries with substantial increases over these figures should provide more seating. The Connecticut State Library, The American Library Association, and Public Library Association endorse these measures for library



THE NEW PLANNING FOR RESULTS

Business and Career Information

"Since many business and career information resources tend to be noncirculating, adequate table space should be provided to support inhouse use of materials."

Consumer Information

"Adequate table space for use of noncirculating materials is essential."

Current Topics and Titles

"A pleasant atmosphere should be created by providing comfortable chairs and excellent lighting."

General Information

"Tables and study carrels should be available in numbers that meet demand during the heaviest use period."

(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

- At least 5% or a minimum of one of each type of seating, tables, or study carrels should be accessible to people with disabilities
- Accessible furniture placement must have clear passage of 36 inches
- Knee space is provided for people who use wheelchairs. This space is 19 inches deep and 27 inches high from floor to underside of table or counters

WORK SPACE

Step 5: Staff Work Area Space

A new or expanded facility offers the opportunity to reorganize relationships among existing work areas and add new work areas to improve service to the community.

All staff work areas will provide for computer equipment and peripherals, plus two-way access to outside resources, such as the Internet, local area, and wide-area networks and other online resources. Data transmission considerations should be part of the planning of this area.

To determine the appropriate number of service points and the appropriate staffing levels at each service point, evaluate present staff workloads and examine trends in service patterns (increasing reference use or young adult use, for instance). Examine each existing and prospective department or service area (circulation; technical services including acquisition, cataloging and processing; reference; children's; etc.); determine whether a service point is appropriate given present or anticipated workloads; if so, identify how many staff members are needed to meet the projected service need. Office space should also be included in this section. The library director and other administrative and department heads should have offices.

Staff should also have a lounge, a place where the staff can get away from the public and eat their meals (include the square footage needs in special-use space).

Note that this section refers to the number of staff work areas, not the number of individual employees or the number of full-time equivalents (FTEs) on the library payroll. Obviously, several individuals can occupy a single work station at different times. Conversely, it may be desirable to provide two or more work areas for certain employees (a children's librarian, for instance, may work a

public service desk part of the time and have a separate desk or office away from that desk).

By identifying work areas, one focuses on the tasks to be performed in a given area and the ways that these tasks relate to other library operations. An average space allocation is 150 square feet per work area. In practice, some will be larger, and others may be slightly smaller.

Formula for Work Areas - To estimate the square feet of space needed for staff work areas, multiply the number of work areas by

Example (service population -- 9,350) # of work areas = $10(10 \times 150) = 1500 \text{ sq. ft.}$ (Four work areas at circulation/information [1 at check in/registration, 1 at check-out, 1 at book sorting, 1 at information] 2 in librarian's office [office and meeting table], 1 in children's area, 3 in technical services)



LIBRARY OUTPUT MEASURE

Greater intensity of use as measured by Reference Transactions per Capita of .6 or higher will require more staff space in the reference area.

Additional temporary staff or volunteers should be considered in estimating staff work space.



THE NEW PLANNING FOR RESULTS

Community Referral

"The provision of Community Referral service sometimes involves the exchange of confidential information. Facilities should be designed to allow for some degree of privacy between the user and the library staff."

Consumer Information

"Facilities for providing Consumer Information services should be designed to allow for some degree of privacy between the user and the library staff."

(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

- An accessible service counter such as a circulation or reference desk must be at least 36 inches in length and no more than 36 inches high
- Accessible work area for staff should be provided upon request

WORK SPACE

Step 6: Meeting Room Space

Most public libraries provide meeting rooms to accommodate library-sponsored programs and other community meetings. The number and size of meeting rooms should be determined by the library's roles as defined in its long-range plan, anticipated programming activities and by the availability of similar rooms elsewhere in the community for use by other local groups.

Increasing use of meeting rooms for technological training requires interconnection of computer equipment and peripherals, plus two-way access to outside resources, such as Internet, local and wide-area networks, and other online resources. All meeting rooms should also provide for the future connection of distance learning with two-way audio and two-way video and large projection capabilities.

There are two basic types of meeting room space: lecture hall or theater seating; and conference room seating. It is not unusual for libraries to provide both types of meeting space. Some libraries with extensive programming activities for children also provide a separate area or room in the children's department to accommodate those activities. Otherwise, children's programs would likely be scheduled in a general meeting room and would prevent other community groups from using the meeting room during certain times.

Factors to consider

- An entrance from the outside to the meeting room so that the room could be used when the library is closed. This would involve being able to access the meeting room, restrooms, and kitchen when the rest of the library is closed.
- A kitchen in or close to the general meeting room. Many groups want to serve coffee and food during a meeting.
- A children's program area attached to the children's area with storage for craft and story hour materials, audiovisual equipment, and temporary chair storage.

- A lockable storage area connected to the general meeting room for chairs, tables, and equipment.
- Formula for Meeting Room Space For seating in a lecture setting, multiply 10 square feet by the number of seats. For seating at a conference table, multiply 25 square feet by the number of seats. For seating in a children's program area, allow 10 square feet per seat.

Example	(service population-9,350) square feet
Conference	1: 60 seats x 10
	orogram area: 25 seats x 10250

TOTAL MEETING ROOM SPACE 1,100



LIBRARY OUTPUT MEASURE

Relevant to this requirement is: Program Attendance per capita - .20 (the mean). Libraries with greater program attendance should consider additional seating.



THE NEW PLANNING FOR RESULTS

Basic Literacy

"Libraries providing Basic Literacy service need to provide quiet and relatively private areas for tutoring. Small study rooms (for two people) are ideal. Classroom space may be provided."

Business and Career Information

"Meeting room space for programming is important but may also be shared with other services."

Commons

"Commons is the idea of the library as an important public place in the community. Meeting spaces of various sizes designed for a variety of purposes are critically important to this service. Meeting rooms should be designed to allow for their use after library hours without

THE NEW PLANNING FOR RESULTS

compromising the security of the rest of the facility. Kitchenette and catering staging space should be provided adjoining large meeting rooms."

"Video projection and video conferencing facilities should be considered."

Consumer Information

"Meeting room space for programming is important but may also be shared with other services."

"Standard programming tools such as an overhead projector, screen, and video playback and projection equipment should be available in the library's meeting facilities."

Cultural Awareness

"Performance and display space is critical for libraries providing Cultural Awareness service. Meeting rooms, a gallery, or display space should be provided. Good acoustics and raised stage for performances are assets.... Facilities that allow for public participation in arts and crafts projects should also be available."

"A full range of technologies used by performers should be provided. A high-quality sound system capable of accepting a variety of inputs and video display or projection equipment are essential. Theatrical lighting and videotaping and editing equipment may also be provided. Since many cultural resources are available on CD-ROM and from the Internet, the library should supply multimedia computers capable of sound and of displaying high-resolution graphics. Meeting room facilities should be equipped with adaptive technologies to help the visually and hearing-impaired as well as the non-English-speaking populations fully participate in meetings and activities."

Formal Learning Support

"Space for individual study as well as group study rooms is typically provided. Computer

THE NEW PLANNING FOR RESULTS cont'd

labs or workstations equipped to allow students to complete homework assignments may be offered. Formal classroom space may be offered. The library may be the site from which students participate in coursework offered using distance education technologies. The library may also use this classroom space to offer bibliographic instruction or training related to locating high-quality, relevant information on the Internet "

General Information

"Individual study rooms and small group study facilities may be provided."

Information Literacy

"Libraries may provide a computer lab to accommodate formal training sessions or they may provide an area in the library that has a large number of computers, some of which can be used for training purposes."

Lifelong Learning

"Libraries providing Lifelong Learning service should provide individual and small-group study spaces. The library may provide meeting spaces for clubs or organizations."

Local History and Genealogy

"The library may provide meeting space for genealogical instruction."

(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)



ADA HIGHLIGHTS

- Must be accessible
- Area for wheelchair seating
- Assistive listening system for people who are hard of hearing
- Accessible stage and dressing rooms

Step 7: Special-Use Space

Special-use space provides space for elements of an individual library's program of service or special types of furnishings that have not been accounted for in earlier sections of this outline.

Communities will vary widely on the need for special-use space.

⇒ Formula for Special-Use Space - The library's mission and roles may require a wide assortment of spaces needed to support particular roles and services needed by the community. Space required for these functions should be determined on an individual library basis.

The following list of representative furnishings and their representative space allocations in square feet could be used. This listing is by no means complete.

sq. ft.
35
9
50
20
140
35
10
25
35
50
4
25 per
seat +50
25 per
seat
10

Additional functions if not included in previous steps could include

- local history and genealogy room
- literacy volunteers meeting room
- job or homework center
- area for the friends of the library

LIBRARY SPACE PLANNING GUIDE

- community information center with a bulletin board, handouts, announcements, and computer.
- Communication area or room, a location from which voice, video, data and other technologies can be centralized to provide a master control center. Recommend size of this area or room is at least 8' x 10'.
 Electrical power supply and ventilation are also important factors as heating loads will vary with the amount of equipment placed in this location.

These spaces will vary depending on the library's needs. To help determine square footage in areas other than the communication area/room, use formulas for collection space and user seating space.

Example of special-use space (service population -- 9,350)

Item	#		a a . A	Total
Item	#	X	sq. ft.	Total
Atlas/	1		35	35
	1	X	33	33
dictionary				
stand	1		0	0
Bulletin	1	X	9	9
board				
Display case	1	X	50	50
Handouts	1	X	20	20
(free-				
standing)				
Index table	1	X	140	140
(six-place)				
Map file	1	X	35	35
Microfilm	2	X	10	20
cabinets				
Newspaper	1	Х	25	25
rack				
Paperback	1	Х	35	35
rack				
Photocopier	2	X	50	100
Staff locker	10	X	4	40
Staff	4	X	25 per	150
lounge/brea		71	seat	150
k rm.			+50	
1 Study	1	X	25 per	100
rooms	1	A	seat	100
(small-			Sout	
group)				
Vertical	4	X	10	40
files	-	Λ	10	TU
SUB-				799
TOTAL (1)				177
101AL (1)				

Special-use space additional needs

1. local history room

Item	#	X	Sq Ft.	Total
		or		
		÷		
books	600	÷	10	60
vertical files	2	X	10	20
table with	4	X	25	100
four chairs				

2. community information center

Item	#	X	Sq.Ft.	Total
		or		
		÷		
Bulletin board	1	X	9	9
handouts and	1	X	20	20
announce-				
ments				
computer	1	X	45	45

3. communication room

 $8' \times 10' \text{ room} = 80 \text{ square feet}$

TOTAL (SUBTOTAL 1+2)......1,163

THE NEW PLANNING FOR RESULTS

Commons and Current Topics and Titles

"Innovative approaches to creating unique environments such as coffee bars should also be considered.

Consumer Information

"Display racks should be provided for distribution of brochures and other free consumer publications."

(The New Planning for Results: a Streamlined)

Approach by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

- Accessible staff lounge
- Accessible study room
- Accessible furniture

LIBRARY SPACE PLANNING GUIDE

WORK SPACE

WORK SPACE						
Item	#	X	sq. ft.	Total		
Atlas/		X	35			
dictionary						
stand						
Bulletin		37	9			
		X	9			
board			100			
Card catalog		X	100			
(60-drawer,						
double face)						
Card catalog		X	35			
(60-drawer,						
single face)						
Display case		X	50			
Handouts		X	20			
(free-		Λ	20			
*						
standing)			1.40			
Index table		X	140			
(six-place)						
Map file		X	35			
Microfilm		X	10			
cabinets						
Newspaper		X	25			
rack						
Paperback		Х	35			
rack		21				
Photocopier		37	50			
		X	1			
Staff locker		X	4			
Staff	1	X	25			
lounge/brea			per			
k rm.			seat			
Study rooms		X	25			
(small-			per			
group)			seat			
Vertical		X	10			
files						
	-	-	-			
	<u> </u>	<u> </u>				
			<u> </u>			
CIID		-	 			
SUB-						
TOTAL (1)	<u> </u>	<u> </u>	1			

o 1		1 1'4' 1	1
Special-use	snace	additional	needs
Special asc	space	additional	necus

1.

Item	#	x or ÷	Sq. Ft.	Total
TOTAL				

2.

Item	#	x or ÷	Sq. Ft.	Total
TOTAL				

3.

TOTAL (TOTAL OF ALL SUBTOTALS)

Step 8: Non-Assignable Space

Non-assignable space is that portion of the building that cannot be applied directly toward library service. Some representative types of non-assignable space include: furnace rooms, janitor's closets, storage rooms (including space for staff supplies), vestibules, security systems near entrances and circulation desks, c-car pickup area, corridors, stairwells, elevator shafts, and restrooms. Such space is necessary to support the operation of the building, but it cannot be used for providing library services. Non-assignable space generally comprises between 20 and 30% of the overall or gross square footage of the finished building. The requirement of stairs and an elevator means that a multi-story building has more non-assignable space.

If in a separate room bookdrops inside buildings must be one-hour fire rated (two-hour rating is recommended). All bookdrops should have fire-extinguishing protection or a sprinkler system and smoke detectors tied into the alarm system of the building. Preferably, the alarm system should have off-site monitoring.

A calculation in the next section, "Putting It All Together," will provide a space allocation for non-assignable space.

THE NEW PLANNING FOR RESULTS

Basic Literacy

"Storage space for materials used by tutors on a regular basis is desirable."

(The New Planning for Results: a Streamlined Approach by Sandra Nelson (Chicago: American Library Association, 2001)

EADA HIGHLIGHTS

- An accessible entrance that provides 32 inches clear width with a 60-inch level approach for a door that pulls open or 36-72 inches for automatic sliding doors
- A series of two entrance doors must have 84 inches of clear floor space between doors

ADA HIGHLIGHTS (cont'd)

- Floor coverings that are secured and no more than 1/2-inch high pile
- Accessible bathrooms that meet specifications
- Accessible water fountains
- Accessible elevator that meets specifications for multi-floor buildings
- Stairs with correct widths, nosings, and rails
- Audible and visual emergency alarms
- Accessible telephones. Provide TTY capability if more than 4 public telephones
- Signs which designate permanent rooms and spaces must comply to specifications for people who have visual problems

WORK SPACE		

Step 9: Putting It All Together

The space needs estimates developed in Steps 1-7 of this outline can be added to derive a subtotal representing the assignable space needs.

- ⇒ Formula for non-assignable space Add Steps 2 through 7, and divide by 4.
- ⇒ Formula for overall space needs Add Steps 2 through 8.

Example				
Step 1:	Projected population9,350			
	0			
	square feet			
Sten 2	Collection space3,490			
	Public electronic			
Step 3				
C4 1 -	workstations			
-	User seating space1,980			
Step 5:	Staff work areas1,500			
Step 6:	Meeting room space1,100			
Step 7:	Special-use space1,163			
•	SUBTOTAL9,838			
Step 8:	Non-assignable space			
•	(Subtotal divided by 4)2,460			
Step 9:	TOTAL PROJECTED			
	SPACE NEEDS12,298			

WORK SPACE

Step 10: Site and Parking

The ideal size of the site-- The structure is approximately 10% of the site. Parking, driveways, etc., are approximately 30% and 60% is for landscaping, setbacks, amenities, etc. Very often this ideal site cannot be achieved because of restrictions to the site.

As a check on the site estimate, consider parking as a separate amount. As a rule of thumb, the total number of parking spaces will be one for each staff member plus one-half the number of adult seats in the building. Also verify that this number would provide enough parking spaces to provide for one car space per two seats in the meeting room. Nearby curb parking and/or commercial parking may often be included. Note that local codes may impose parking requirements. Some codes require that 300-350 square feet per car be allocated for drives and parking.

The library grounds should be well lighted and clean with a prominent lighted outside sign designating the building or portion of the building as the library. There also should be easy access to a fireproof book return located in a safe, lighted area and available when the library is not open.

THE NEW PLANNING FOR RESULTS

Commons and Cultural Awareness

"Parking available at or near the library should be adequate to handle the traffic generated by full capacity meeting room use in addition to parking required to support other library use." (*The New Planning for Results: a Streamlined Approach* by Sandra Nelson (Chicago: American Library Association, 2001)

LADA HIGHLIGHTS

- Shortest route of travel from the parking area to an accessible entrance
- Signage to the accessible entrance if the main entrance is inaccessible
- Correct number of accessible parking spaces depending on total number of parking spaces
- Correct size of accessible parking space with proper signage
- Curb cuts, ramps walkways, and handrails that meet specifications

Next Steps:

WORKSPACE:

If the facility and site prove feasible, then a thorough building program should be developed with a detailed program form completed for each functional area in the building (see *Application for State Public Library Construction Grant*). It will result in a more refined statement of size and contents of the facility, and a more accurate cost estimate.

Conclusion

This outline should be completed from time to time, as changing estimates of your community's projected population and demographics warrant, but no less frequently than every five years. Once this outline is completed, library planners will have an estimate of your library's overall space needs. Comparison of this estimate with the existing facility may highlight a significant deficiency in the space your library provides.

If that proves to be the case, the library stands ready to embark upon a most important and exciting mission: a building program. Before writing the building program, there should be a closer examination of the space needs assessment. The space needs assessment can be refined through more narrow examination of the six broad types of space. This is done by

- Classifying the broad types of space discussed in the outline into more functional groups and arrangements.
- Identifying collections or service areas that were not specifically discussed in the context of the outline.
- Describing more specific environments and conditions in the library.

The primary roles and mission of the library will affect the size of the different collections. For example, if the main role of the public library is to be a popular library, then the library features current, high-demand, high-interest materials in a variety of formats for persons of all ages. This facility promotes browsing and has attractive displays and good signage with casual seating. However, if the main role is to be a preschoolers' door to learning, then the library encourages young children to develop an interest in reading and learning through services for children and for parents and children together. The facility is in a location easily accessible to young children. Ample, inviting space is available for programs and story hours.

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Shelving and furnishings are attractive, accessible, and comfortable for young children. The roles the library chooses will also affect the size of the collection, which in turn will affect the amount of square footage in that area.

The next step is to determine the number of volumes that will be in each of the following areas: adult nonfiction, adult reference, adult fiction, children's picture books, children's books and nonprint materials. In determining the square footage for each the following factors need to be taken into consideration:

- The height of a typical shelving unit and the number of shelves it can house;
- The length of a typical shelf and how much of each shelf should be used under ordinary circumstances--the "working capacity" of a shelf is only 66% to 80% of its actual length;
- The type of material being shelved (how many volumes can typically be shelved per linear foot of shelf space?);
- The width of the aisles and the size of the base shelf. (Both factors help to determine the floor space that a representative shelving unit occupies.)

These factors will not be consistent in all parts of a collection. Children's material occupies lower shelves than does adult material. Reference books usually are housed with fewer volumes per linear foot of shelving than other types of material.

Library planners should also remember that, for various parts of the collection, there will always be a portion out in circulation. Completing the following chart will help to determine how full the shelves will be and how much seating should be allocated:

	Total Vols.	% in Circulation	Volumes in house
Adult nonfiction Adult			
reference Adult			
fiction Children's picture			
books Children's books			
TOTAL			

Other types of space can be subdivided as well: user seating space, staff work space, Special-Use Space, and so on. At the end of this process, planners will have a space needs assessment organized around the library's functional areas.

With the preparation of a detailed space needs assessment, planners can start to evaluate the merits of different options available to them: new construction, expansion and addition, or adaptation of an existing structure. A building program statement is then prepared which summarizes space needs and the ways that expanded service areas should interrelate in a new or expanded facility. Few projects are as complex and rewarding as a building program, and few offer such an opportunity to shape the community's library services for years to come. The Library Area form, (see *Application for* State Public Library Construction Grant) should be completed for each section of the library. projecting the library's need for each section for 20 years. This form should be included in the building program. This form shows the activities performed in the area; the number of people who will be in the area at one time and throughout the day; architectural features, including notes about lighting levels, accessibility, and environmental controls; furnishings and equipment; interrelationships among departments; number of books, nonbooks, seats, etc. The architect will use a building program statement as a guide when developing plans for a library. The building

LIBRARY SPACE PLANNING GUIDE

program becomes a point of common reference between library planners and architect as they consider specific design options.

Your library system and Connecticut State Library can provide continued assistance with the facilities planning process. Planners can also benefit from a review of the literature on library design and construction. See Appendix 3 for a bibliography.

Appendix 1: THE LIBRARY IMPROVEMENT PLANNING PROCESS

The library improvement planning process is a highly interactive complex task involving the library governing body, administrative staff, consultant and architect in a wide variety of interdependent activities. Its purpose is to provide a sound basis for improving library services and facilities firmly based on community needs and library capabilities. It serves these varying purposes:

- Identifies overall size and general cost of the project
- Assists staff in determining space needs, capacities and spatial relationships
- Provides architect with program for designing the renovation, addition or new building
- Provides staff with a document for the review of architectural plans

The Process in Brief includes these steps:

1. Mission, Goals and Objectives

Review and discuss the mission, goals and objectives of the library with the staff and trustees in order to understand the town, library and overall priorities.

2. Community Analysis

Analyze library history and community demographics in order to place the present conditions in an evolutionary perspective and relate project goals to community development.

3. Library Analysis

 Conduct focus groups in the community to understand individual perceptions of library services and their related facility requirements.

- Interview library and political/economic community leaders to understand the political and economic potential for obtaining resources for library improvement.
- Analyze library use and existing physical facilities in relation to the community and to the mission, goals and objectives of the library in order to develop library improvement objectives.
- Evaluate existing facility including ADA deficiencies.
- List specific library building improvement objectives

4. Library Building Program Preparation to end of project

- Upon request, meet with the Building Consultant, Connecticut State Library, for assistance in planning, space planning, developing library construction projects, and submitting project applications for construction grants.
- Work with the staff to prepare a brief outline program delineating major functional areas and capacities needed.
- Discuss this preliminary program with the library governing authority and town fiscal representatives.
- Consult with members of the community who have different types and levels of disability to see how the library can better meet their needs.
- Revise outline program.
- Work with the staff to prepare detailed functional area sheets for each library functional area (see *Application for State Public Library Construction Grant*). This will include:

LIBRARY SPACE PLANNING GUIDE

- 1. Name and square footage
- 2. Activities (What takes place here?)
- 3. Occupants (How many people use this area at one time?)
- 4. Major design features and ambiance of area (acoustical, wiring, environmental, lighting, security systems, and flexibility)
- 5. Equipment, furniture, shelving and storage capacity
- 6. Materials (How many books and non-book items will be here at any given time?)
- 7. Area relationships
- With extensive staff participation the consultants or library director prepare a preliminary library building program. In addition to written recommendations for facility improvements based on the evaluation above, this work involves interactive sketching of each individual functional area with the appropriate staff members.
- Revise functional area sheets based on staff review.
- Select and evaluate potential sites.
- Analyze renovation and addition alternatives with the library director and building committee to determine how the preliminary program could be accomplished. This may

- be a renovation of the existing facility, an addition or an entirely new building.
- Modify preliminary program.
- Prepare schematic plans for chosen alternative. Estimate costs.
- Prepare the final library building program.
- Present the final document to an audience to be determined. (Usually the funding authority)
- Work with the architect on design development and further refine cost estimates.
- Work with the architect on construction documents and bidding.
- Work with the architect and design consultants on furniture and equipment, lighting and graphics.
- Work with the staff and architectural team on moving and installation.
- Conduct post-occupancy evaluation after the first year of occupancy to determine the changes necessary to respond to new library uses.

Appendix 2: Quantity Measures

Source:

Avenues to Excellence for Public Library Service in Illinois (Springfield: Illinois State Library, 1996)

Use the charts below keeping in mind that the library's roles will affect the size of the collection:

1. BOOKS - volumes

		Core plus vol. per capita	Core plus vol. per capita
Population	Core	Basic	Growing
Less than 1000	2,000	5	7
1,000 - 2,499	6,000	2	3
2,500 - 4,999	10,000	1.75	2.75
5,000 - 9,999	18,000	1.25	2.5
10,000 - 14,999	35,000	0.6	2
15,000 - 24,999	45,000	0.6	2
25,000 - 49,999	70,000	0.5	2
50,000 - 74,999	110,000	0.5	2
75,000 - 99,999	150,000	0.4	1.75
Over 100,000	220,000	0.4	1.75

2. CURRENT PERIODICALS - title

		Core plus Subscription per 1000	Core plus Subscription per 1000
Population	Core	Basic	Growing
Less than 1000	15	15	30
1,000 - 2,499	20	15	20
2,500 - 4,999	30	15	20
5,000 - 9,999	45	10	15
10,000 - 14,999	60	8	12
15,000 - 24,999	120	8	12
25,000 - 49,999	180	6	8
50,000 - 74,999	250	4	6
75,000 - 99,999	450	3	5
Over 100,000	600	2	4

3. NONPRINT COLLECTIONS

Nonprint collections play an increasingly important role in most public libraries. The library's roles will affect the size. Building program consultants are typically recommending that the size of the nonprint collections be 10% of the book collection. When more than one format is provided for a given title, such as *Casablanca* on video and laser, the percent will increase.

Appendix 3: Bibliography

The Americans with Disabilities Act Checklist for Readily Achievable Barrier Removal. National Institute on Disability and Rehabilitation Research, 1995

Beckman, Margaret. Public Library Buildings for the 21st Century: A Handbook for Architects, Librarians & Trustees. Bowker, 1993.

Black, J.B., et al. *Surveying Public Libraries for the ADA*. Tallahassee, FL. State Library of Florida, 1992.

Boon, Belinda. *The CREW Method: Expanded Guidelines for Collection Evaluation and Weeding for Small and Medium-Sized Public Libraries*. Austin, Tex.: Texas State Library, 1995.

Boss, Richard W. Facilities Planning for Technology. Library Technology Reports (July-August) Chicago: American Library Association, 1995.

Brawner, Lee B. and Beck, Jr. Donald. *Determining Your Public Library's Future Size: A Needs Assessment and Planning Model*. Chicago: American Library Association, 1996.

Brown, Carol. *Planning Library Interiors: The Selection of Furnishings for the 21st Century.* Oryz Press, 1995.

Building Blocks for Library Space: Functional Guidelines 1995. Chicago: American Library Association, 1995.

Connecticut State Library. *Minimum Standards for Connecticut Principal Public Libraries*. Hartford, CT: Connecticut State Library, 1994.

Crawford, Walt and Michael Forman. Future Libraries: Dreams, Madness & Reality. Chicago: American Library Association, 1996.

Dahlgren, Anders C. *Planning the Small Library Facility*. Chicago: American Library Association, 1996.

Dahlgren, Anders, C. *Public Library Space Needs: A Planning Outline*. Madson, WI: Department of Public Instruction, 1988.

Dewe, Michael. Planning and Designing Libraries for Children. London: Library Association, 1995.

Fraley, Ruth, and Lee Anderson. Library Space Planning. New York: Neal-Schuman, 1990.

Guidelines for Technology Infrastructure in Connecticut Schools. Hartford, CT: Connecticut State Department of Education, 1995. .(http://www.aces.k12.ct.us/csde/gtics)

Holt, Raymond M. *Planning Library Buildings and Facilities from Concept to Completion*. Metuchen, NJ, Scarecrow Press, Inc. 1989.

LIBRARY SPACE PLANNING GUIDE

Holt, Raymond M. *The Wisconsin Library Building Project Handbook*. 2nd revised edition Madson, WI: Department of Public Instruction, 1990. (Note especially Chapter II: "Needs Assessment-The Starting Point.")

Koontz, Christine M. Library Facility Siting and Location Handbook. Greenwood Press, 1997.

Libraries for the Future, Planning Buildings that Work. Chicago: Library Administration and Management Association, American Library Association, 1992.

Library Buildings Consultants List. Edited by Kazuko Dailey and James Estrada. Chicago: American Library Association, 1995 (updated every other year)

Library Buildings, Equipment, and the ADA: Compliance Issues and Solutions. Chicago: American Library Association, 1996.

Library Lighting, a Primer for Libraires. Minneapolis: Meyer, Scherer & Rockcastle, Ltd., 1996.

Lushington, Nolan and James Kusack. *The Design & Evaluation of Public Library Buildings*. Shoe String, 1991.

Lushington, Nolan. Libraries Designed for Users: A 21st Century Guide. Neil-Schuman, 2002.

Mayo, Diane. Wired for the Future: Developing Your Libraries' Technology Plan. Chicago. American Library Association, 1999.

McCarthy, Richard. *Designing Better Libraries: Selecting & Working with Building Professionals*, 2nd ed.. Highsmith, 1999.

Nelson, Sandra. *The New Planning for Results: A Streamlined Approach*. Chicago: American Library Association, 2001.

Output Measures for Public Libraries: A Manual of Standardized Procedures. 2nd ed. Chicago: American Library Association, 1987.

Planning Library Buildings: A Select Bibliography. Chicago: LAMA, American Library Association, 1996.

Sannwald, William. *Checklist of Library Building Design Considerations*. 4th ed., Chicago: Library Administration and Management Association, 2001.

Walter, Virginia. Output Measures and More: Planning and Evaluation Public Library Services for Young Adults. Chicago: American Library Association, 1995

Walter, Virginia. Output Measures for Public Library Service to Children.. Chicago: American Library Association, 1995

Zweizig, Douglas, Debra Wilcox Johnson, and Jane Robbins. *The Tell It Manual: The Complete Program for Evaluating Library Performance*. Chicago: American Library Association, 1996.

Appendix 4: Websites

Connecticut State Library. Library Buildings (http://www.cslib.org/libbuild.htm) Has links to the following topics and websites:

- ADA. U.S. Department of Justice Americans with Disabilities Act
- Architect and Interior Designer Information
 - AIA Connecticut
 - American Institute of Architects
 - American Society of Interior Designers
 - Architects USA
- Architects' names and addresses (names listed in Connecticut Public Library Construction Grant Projects)
- Articles about Connecticut libraries that have undertaken remodeling and/or expansion projects
 - Connecticut's Library Heritage, (from Connecticut Library Association)
 - Connector, Connecticut State Library Newsletter, articles about connector/ libraries around the state that have undertaken remodeling and/or expansion projects
- Building Consultants, a list of private building consultants that work in CT (This list is not a recommendation by the Connecticut State Library)
- Connecticut Award for Excellence in Public Library Architecture (an award given every other year).
- Connecticut Public Library Construction Grant Projects, a listing of towns that received State Public Library
- Construction Grants (date of construction, Architects name, and type of construction project)
- Furniture dealers, a list of dealers, addresses, and towns in Connecticut that bought furniture
- Library Space Planning Guide and worksheet in excel
- Moving
 - Planning Shifts of Library Collections by Shirien Chappell)
 - Library Journal Buyer's Guide. Movers Services
 - Library Journal Buyer's Guide. Moving equipment
 - ALA's Moving Libraries (LARC Fact Sheet Number 14)
- Purchasing (DAS Procurement/Purchasing Contracts for State Agencies and Towns. Statewide contracts are open to towns and municipalities in CT)
- Space Planning (other states and organizations)
 - Bibliography (from the Massachusetts Public Library Construction Program)
 - Checklist For Success (from the Massachusetts Public Library Construction Program)
 - IFLA: Section on Library Buildings and Equipment, information on this committee and its publications including a full text report: Intelligent Library Buildings.
 - Library Administration and Management Association publications (LAMA is a division of the American Library Association. This includes *Library Building Consultant* List, Buildings and Equipment Section.)
 - Public Library Space Needs: A Planning Outline, 1998 Anders C. Dahlgren (from Wisconsin Department of Public Library Instruction, Public Library Development)

Connecticut State Library. Construction Grants (http://www.cslib.org/constgr.htm)

U.S. Census Bureau. American Fact Finder (http://factfinder.census.gov/servlet/BasicFactsServlet)

Library Area Work Form

Library Area (Circulation/Fiction/Children's/etc)

Size (square feet)		Date
Activities		
Occupancy (at one time) Public	Staff	Daily Uses
Architectural Features - Ambiance		
Furnishings and Equipment		
Total Seats: Table Carrel (How many chairs and what type?)	Lounge	Staff
Proximity (What should this area be near?)	Distance (What should not be near?)	
Books (How many books will be Here at a given time?)	Non-Book Materials (How many nonprint materials will be here at a given time?)	

Connecticut State Library, Hartford, CT 06106

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